

REMARKS

Claims 7-15 and 18 remain pending in the present application. Claims 7 and 12 have been amended. Basis for the amendments can be found throughout the specification, claims and drawings as originally filed.

REJECTION UNDER 35 U.S.C. § 112

Claims 7-15 and 18 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. The claims have been amended to overcome the rejection. Reconsideration of the rejection is respectfully requested.

REJECTION UNDER 35 U.S.C. § 103

Claims 7-11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over de Molina, et al. in view of Lee or Dressell, Jr., et al. ('415). Applicant respectfully traverses this rejection. The Examiner agrees that de Molina does not disclose a helical formation of holes with the sleeve having the capability to simultaneously cover the holes to close the third flow path.

The Examiner first looks to Lee to provide this feature. Lee discloses a plurality of holes that could be arranged in a helical pattern but nothing in Lee discloses, teaches or even suggests the concept of closing the flow path completely. The present invention systematically closes one hole after the other until all the holes are covered and the flow path is closed. Lee continuously passes over holes 34 so that fewer are still functional but Lee does not have the capability of fully closing all of the holes. If Lee fully closed all of the holes, the system would no longer function.

The Examiner has used hindsight in picking and choosing isolated elements from various pieces of prior art by using Applicant's application as a guide or road map. This hindsight reconstruction has been found to be contrary to the purpose of the patent laws.

Dressell, Jr., et al. does not show helically arranged orifices in Figures 2 and 10 that are progressively covered by sleeve 76. Dressell, Jr., et al. discloses three fluid ports 80, 82 and 84 extending through cylinder 20. A sleeve 76 rotatably sits on cylinder 20. There are three grooves 86, 88 and 90 which align with the three fluid ports 80, 82 and 84. The rotational position of sleeve 76 determines where on grooves 86-90 the ports 80-84 are located and thus how much fluid flow there is. There are no helically arranged orifices or even a suggestion to have helically arranged orifices. Figure 10 shows a spiral groove not a plurality of holes arranged in a spiral pattern. The spiral grooves allow holes 80-84 to communicate with holes 132, but neither holes 80-84 or holes 134 are arranged in a spiral pattern.

Thus, Applicant believes Claim 7, as amended, patentably distinguishes over the art of record. Likewise, Claims 8-11, which ultimately depend from Claim 7, are also believed to patentably distinguish over the art of record. Reconsideration of the rejection is respectfully requested.

Claims 12-15 and 18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over de Molina in view of Dressell, et al. ('415) or Schupner ('122). Applicant respectfully traverses this rejection. The Examiner agrees that de Molina does not illustrate a single hole and a groove extending in a helical pattern where the sleeve progressively covers the hole and spiral groove.

Dressell, et al. ('415) discloses in Figure 10 a spiral groove 132 but Applicant is unable to identify anywhere within Dressell, et al. which defines the groove as changing in depth. Applicant respectfully requests the Examiner to identify where in Dressell, et al. the variable depth groove is disclosed or even suggested. Schupner discloses slots 70-73 which do not include a hole located in their base since holes 47-50 are located in a different component. As shown in Figure 4, sleeve 11 is rotated such that opening 49 interfaces with a different portion of groove 53. There is nothing in Schupner which progressively closes groove 53, it simply uses a different portion of it to control fluid flow.

Thus, Applicant believes Claim 12, as amended, patentably distinguishes over the art of record. Likewise, Claims 13-15 and 18, which ultimately depend from Claim 12, are also believed to patentably distinguish over the art of record. Reconsideration of the rejection is respectfully requested.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: April 25, 2005

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